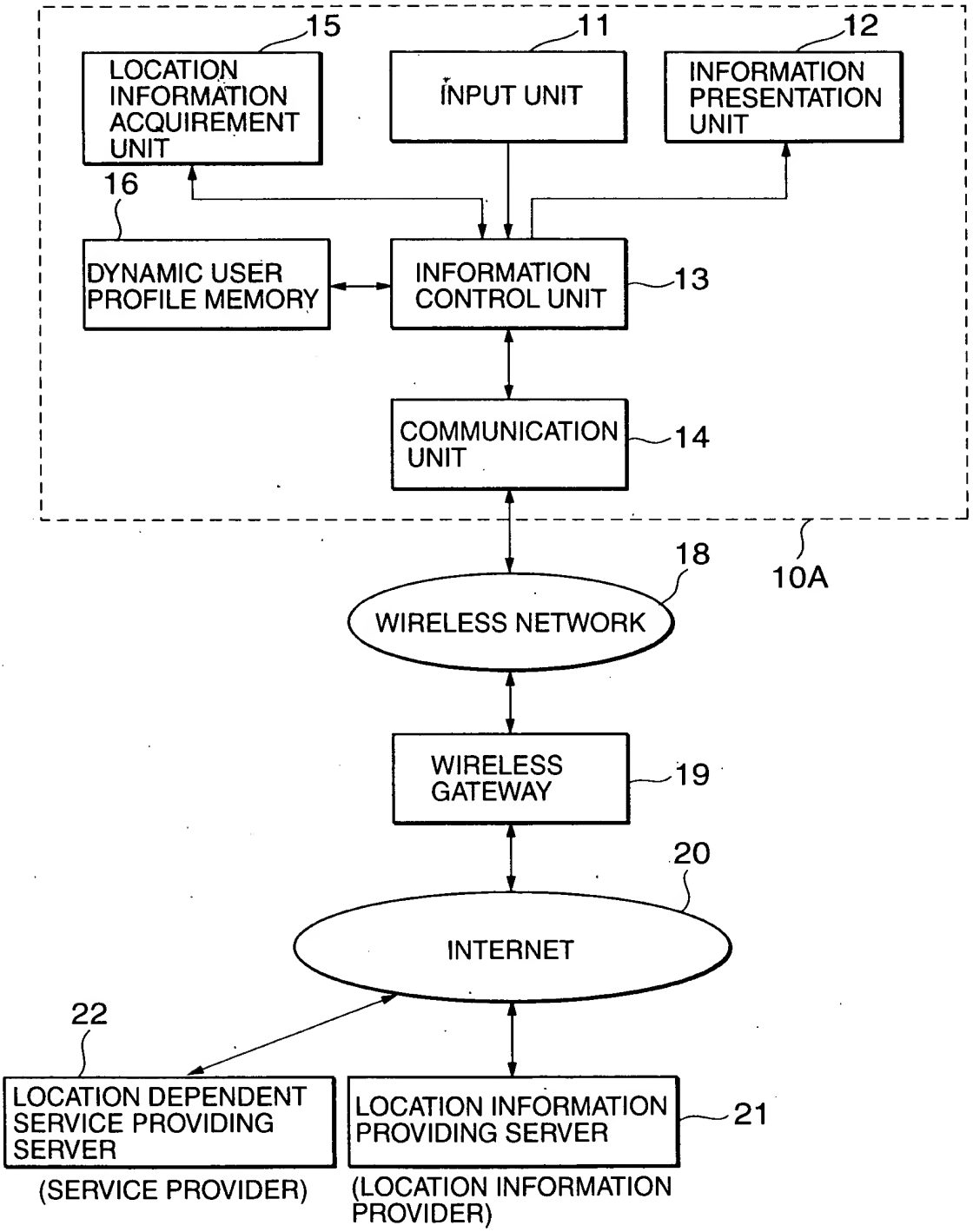
15
LOCATION INFORMATION ACQUIREMENT UNIT
11
INPUT UNIT
12
INFORMATION PRESENTATION UNIT
16
DYNAMIC USER PROFILE MEMORY
INFORMATION CONTROL UNIT
13
COMMUNICATION UNIT
14
10A
18
WIRELESS NETWORK
WIRELESS GATEWAY
19
20
INTERNET
22
LOCATION DEPENDENT SERVICE PROVIDING SERVER
(SERVICE PROVIDER)
LOCATION INFORMATION PROVIDING SERVER
21
(LOCATION INFORMATION PROVIDER)

FIG.1

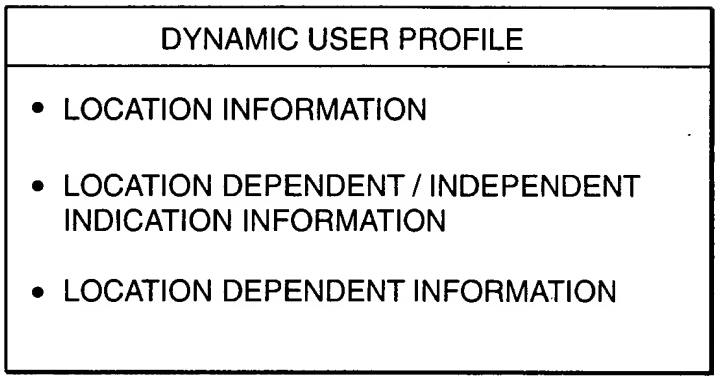
DYNAMIC USER PROFILE
• LOCATION INFORMATION
• LOCATION DEPENDENT / INDEPENDENT INDICATION INFORMATION
• LOCATION DEPENDENT INFORMATION

FIG.2

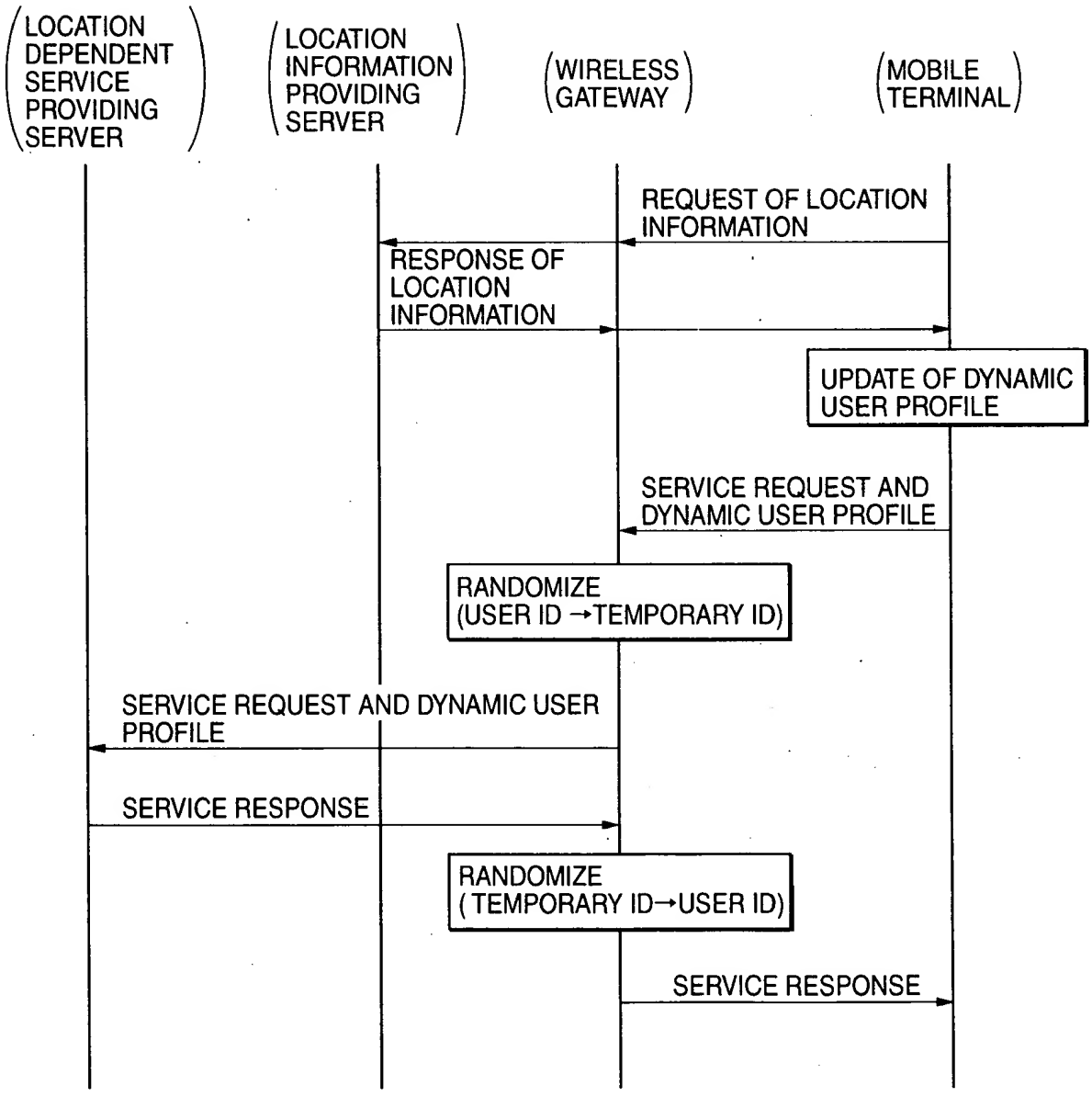
LOCATION DEPENDENT SERVICE PROVIDING SERVER
LOCATION INFORMATION PROVIDING SERVER
WIRELESS GATEWAY
MOBILE TERMINAL
REQUEST OF LOCATION INFORMATION
RESPONSE OF LOCATION INFORMATION
UPDATE OF DYNAMIC USER PROFILE
SERVICE REQUEST AND DYNAMIC USER PROFILE
RANDOMIZE (USER ID →TEMPORARY ID)
SERVICE REQUEST AND DYNAMIC USER PROFILE
SERVICE RESPONSE
RANDOMIZE (TEMPORARY ID→USER ID)
SERVICE RESPONSE

FIG.3

SERVICE REQUEST ID	SERVICE PROVIDER NAME	LOCATION INFORMATION	USER TEMPORARY ID	PARAMETER
p1	PR1	(X1,Y1)	UID1	ds1
p2	PR2	(X2,Y2)	UID2	ds2
p3	PR2	NULL	UID3	ds3
:	:	:	:	:

FIG.4A

SERVICE REQUEST ID	SERVICE PROVIDER NAME	LOCATION INFORMATION	PARAMETER
p1	PR1	(X1,Y1)	ds1
p2	PR2	(X2,Y2)	ds2
p3	PR2	(X3,Y3)	ds3
:	:	:	:

FIG.4B

SERVICE REQUEST ID	WIRELESS GATEWAY ID	LOCATION INFORMATION	PARAMETER
p1	WG1	(X1,Y1)	ds1
p113	WG11	(X2,Y2)	ds2
p9	WG1	(X3,Y3)	ds3
:	:	:	:

FIG.5A

SERVICE REQUEST ID	LOCATION INFORMATION	CREATION SERVICE INFORMATION
p1	(X1,Y1)	si1
p9	(X3,Y3)	si9
:	:	:

FIG.5B

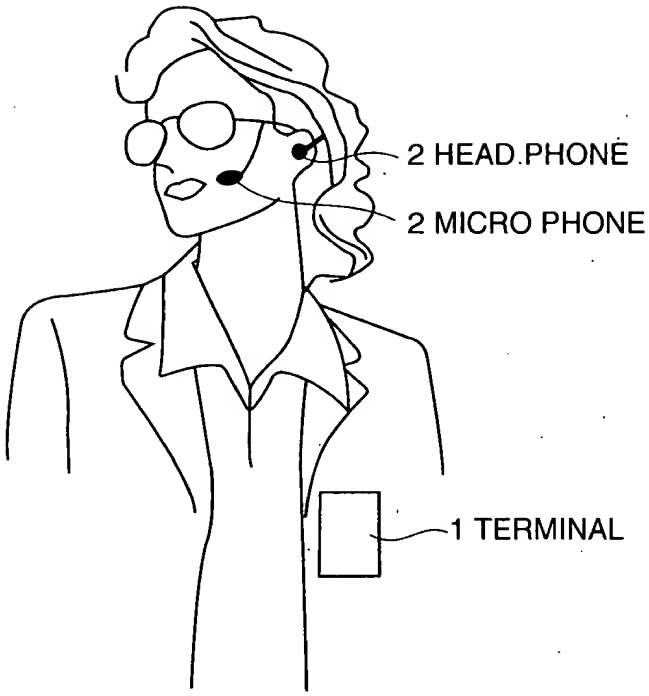

FIG.6

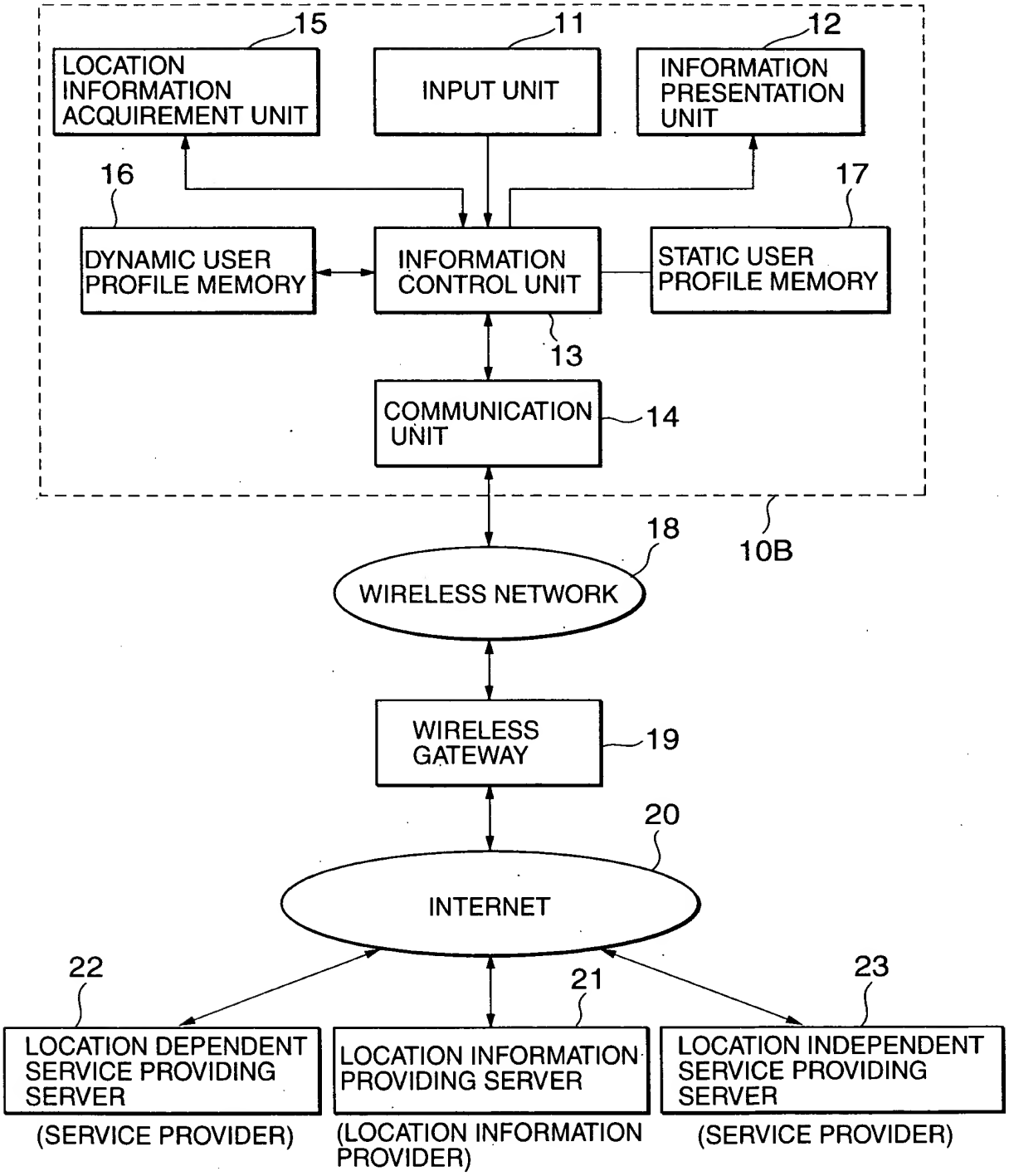
15
LOCATION INFORMATION ACQUIREMENT UNIT
11
INPUT UNIT
12
INFORMATION PRESENTATION UNIT
16
DYNAMIC USER PROFILE MEMORY
INFORMATION CONTROL UNIT
13
17
STATIC USER PROFILE MEMORY
COMMUNICATION UNIT
14
10B
18
WIRELESS NETWORK
WIRELESS GATEWAY
19
20
INTERNET
22
21
23
LOCATION DEPENDENT SERVICE PROVIDING SERVER
(SERVICE PROVIDER)
LOCATION INFORMATION PROVIDING SERVER
(LOCATION INFORMATION PROVIDER)
LOCATION INDEPENDENT SERVICE PROVIDING SERVER
(SERVICE PROVIDER)

FIG.7

DYNAMIC USER PROFILE
• LOCATION INFORMATION • LOCATION DEPENDENT / INDEPENDENT INDICATION INFORMATION • LOCATION DEPENDENT INFORMATION

FIG.8A

STATIC USER PROFILE
• USER ID • USER LIKING INFORMATION • LOCATION INDEPENDENT INFORMATION

FIG.8B

HISTORY INFORMATION	LOCATION INFORMATION	PARAMETER
tn	(X1,Y1)	ds1
tn-1	(X2,Y2)	ds1

FIG.9A

USER ID	VALID TERM	PARAMETER
AU1	YYMMDD	uf1

FIG.9B

SERVICE REQUEST ID	SERVICE PROVIDER NAME	LOCATION INFORMATION	USER TEMPORARY ID	PARAMETER
p1	PR1	(X1,Y1)	UID1	ds1
p2	PR2	(X2,Y2)	UID2	ds2
p3	PR2	NULL	UID3	ds3
:	:	:	:	:

FIG.10A

SERVICE REQUEST ID	SERVICE PROVIDER NAME	USER TEMPORARY ID	PARAMETER
up1	PR1	au1	ds11
up2	PR2	au2	ds12
up3	PR2	au3	ds13
:	:	:	:

FIG.10B

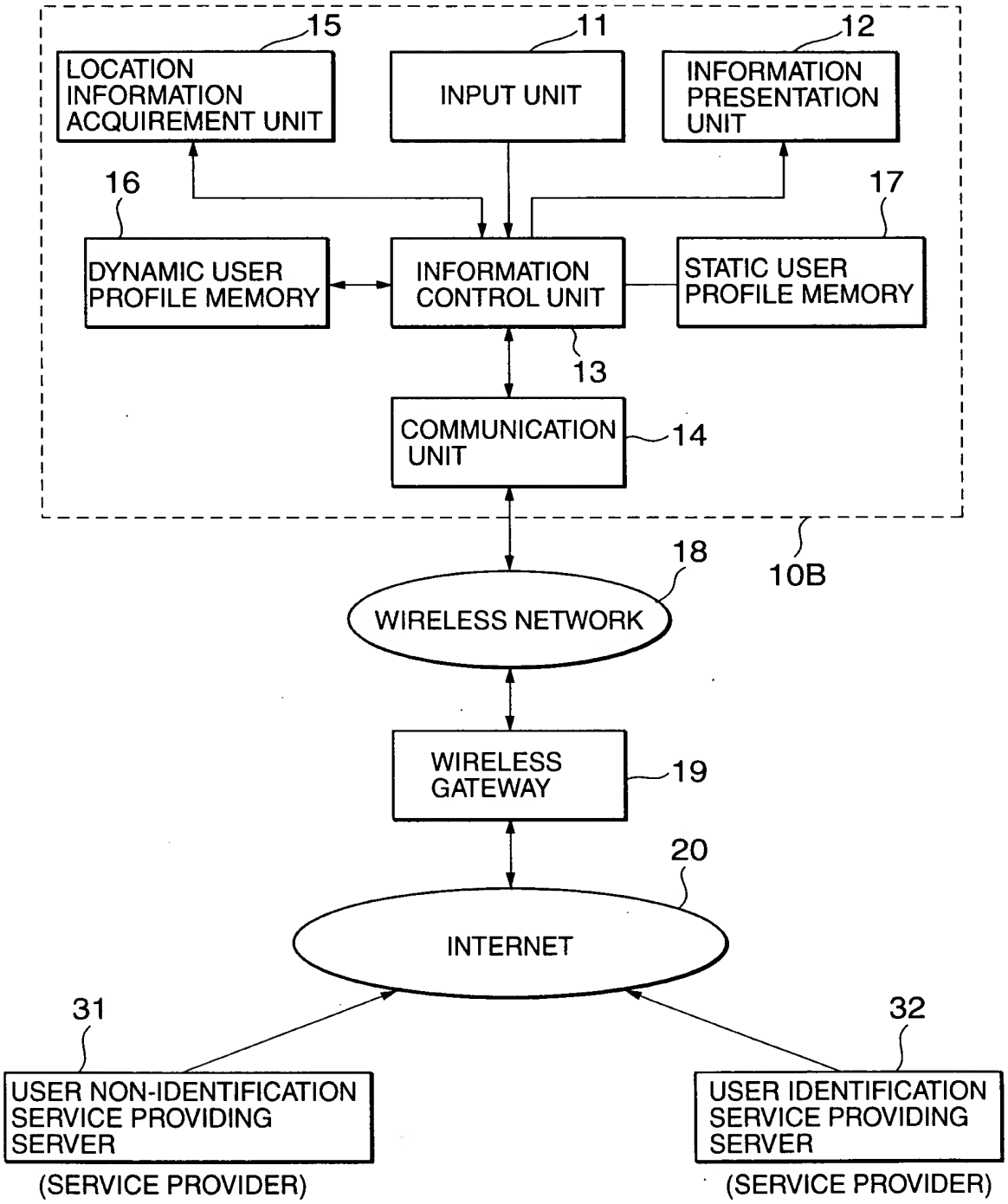
15
LOCATION INFORMATION ACQUIREMENT UNIT
11
INPUT UNIT
12
INFORMATION PRESENTATION UNIT
16
17
DYNAMIC USER PROFILE MEMORY
INFORMATION CONTROL UNIT
STATIC USER PROFILE MEMORY
13
COMMUNICATION UNIT
14
10B
18
WIRELESS NETWORK
WIRELESS GATEWAY
19
20
INTERNET
31
32
USER NON-IDENTIFICATION SERVICE PROVIDING SERVER
(SERVICE PROVIDER)
USER IDENTIFICATION SERVICE PROVIDING SERVER
(SERVICE PROVIDER)

FIG.11

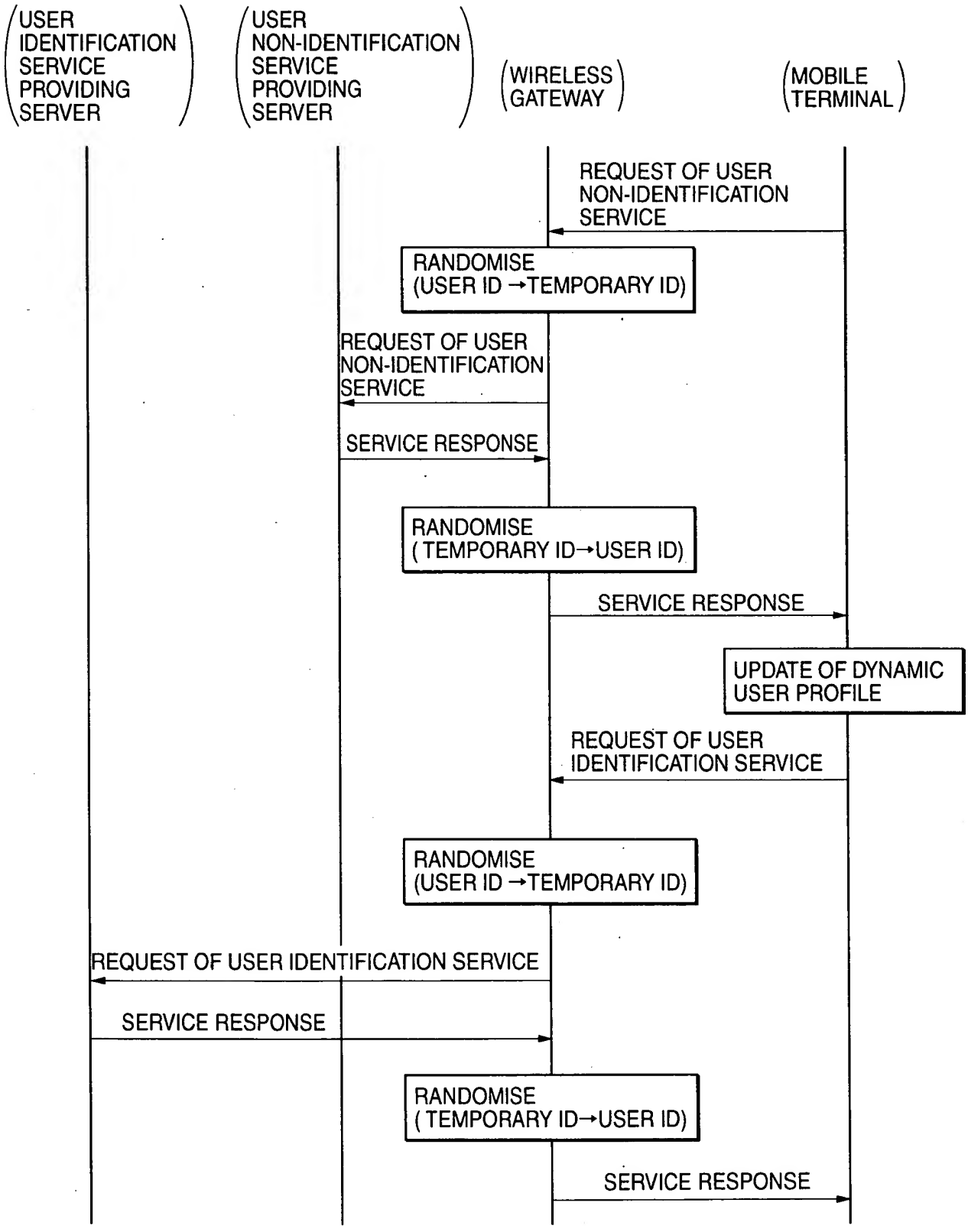
USER IDENTIFICATION SERVICE PROVIDING SERVER
USER NON-IDENTIFICATION SERVICE PROVIDING SERVER
WIRELESS GATEWAY
MOBILE TERMINAL
REQUEST OF USER NON-IDENTIFICATION SERVICE
RANDOMISE (USER ID →TEMPORARY ID)
REQUEST OF USER NON-IDENTIFICATION SERVICE
SERVICE RESPONSE
RANDOMISE (TEMPORARY ID→USER ID)
SERVICE RESPONSE
UPDATE OF DYNAMIC USER PROFILE
REQUEST OF USER IDENTIFICATION SERVICE
RANDOMISE (USER ID →TEMPORARY ID)
REQUEST OF USER IDENTIFICATION SERVICE
SERVICE RESPONSE
RANDOMISE (TEMPORARY ID→USER ID)
SERVICE RESPONSE

FIG.12

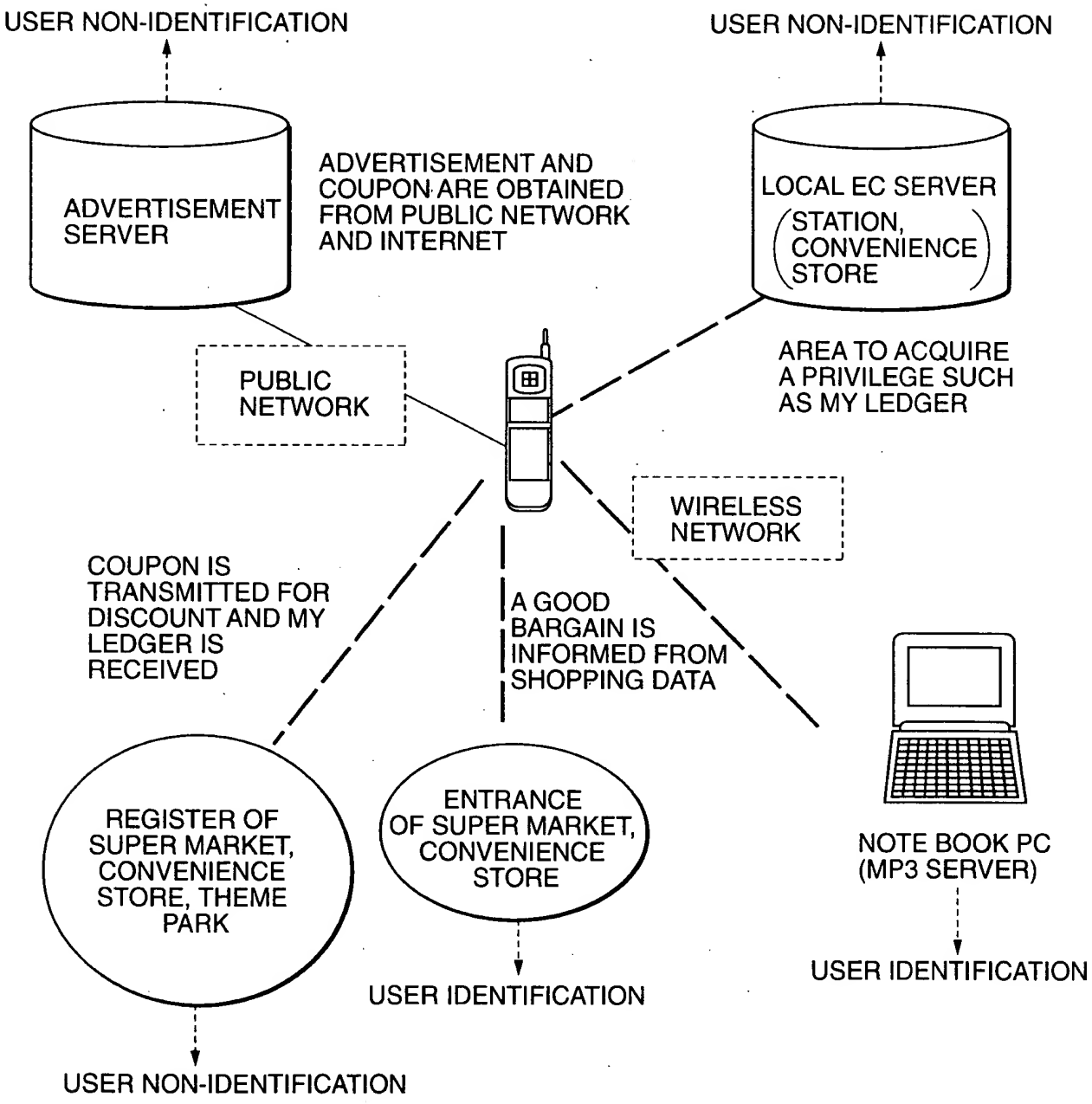
USER NON-IDENTIFICATION
USER NON-IDENTIFICATION
ADVERTISEMENT SERVER
ADVERTISEMENT AND COUPON ARE OBTAINED FROM PUBLIC NETWORK AND INTERNET
LOCAL EC SERVER (STATION, CONVENIENCE STORE
PUBLIC NETWORK
AREA TO ACQUIRE A PRIVILEGE SUCH AS MY LEDGER
WIRELESS NETWORK
COUPON IS TRANSMITTED FOR DISCOUNT AND MY LEDGER IS RECEIVED
A GOOD BARGAIN IS INFORMED FROM SHOPPING DATA
REGISTER OF SUPER MARKET, CONVENIENCE STORE, THEME PARK
ENTRANCE OF SUPER MARKET, CONVENIENCE STORE
NOTE BOOK PC (MP3 SERVER)
USER IDENTIFICATION
USER IDENTIFICATION
USER NON-IDENTIFICATION

FIG.13

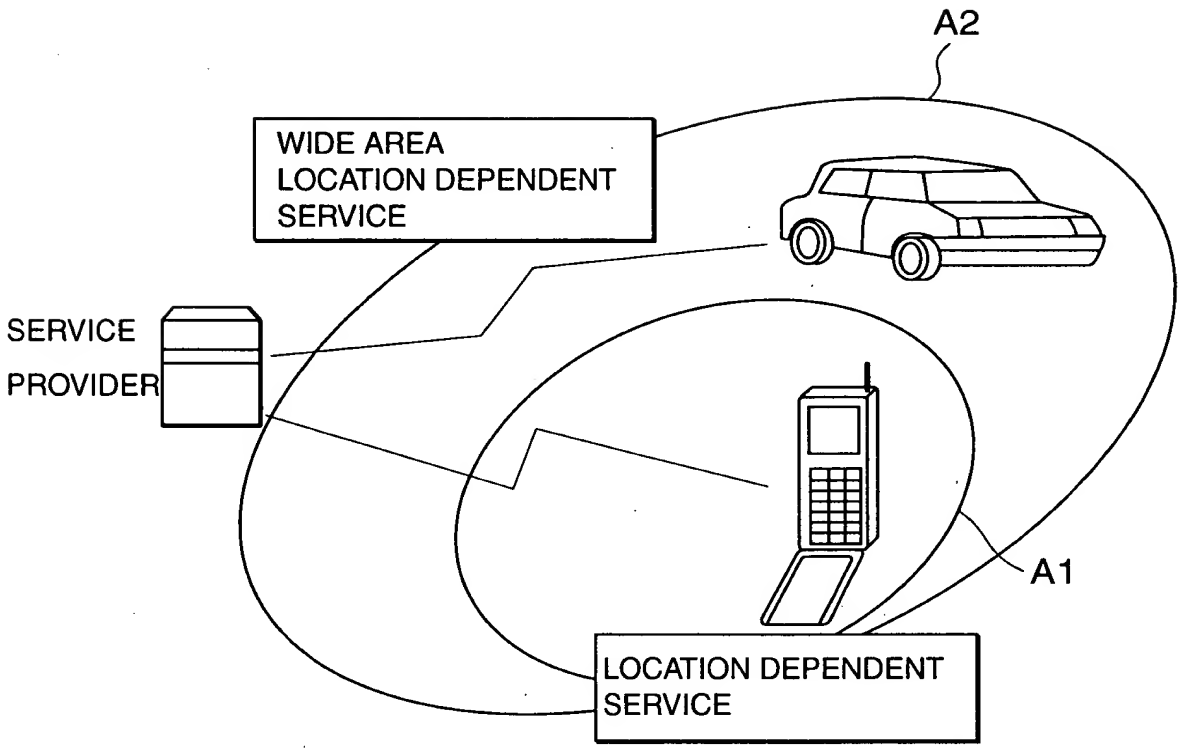
A2
WIDE AREA
LOCATION DEPENDENT
SERVICE
SERVICE
PROVIDER
A1
LOCATION DEPENDENT
SERVICE

FIG.14